

**WHAT IS CLAIMED IS:**

1. A method of decompressing image data, the method comprising:
  - a) receiving a VQ encoded image;
  - b) decoding the VQ encoded image; and
  - c) performing output image color space processing in conjunction with the decoding.
2. The method of claim 1, wherein output image color space processing further comprises half-toning.
3. The method of claim 1, wherein output image color space processing further comprises color transformation.
4. The method of claim 1, wherein output image color space processing further comprises color transformation and half-toning.
5. The method of claim 1, wherein the VQ encoded image is in the luminance-chrominance color space.
6. The method of claim 1, wherein the output image color space processing produces RGB data.
7. The method of claim 1, wherein the output image color space processing produces CMYK data.
8. The method of claim 1, wherein the VQ encoded image is encoded with a codebook that is not a power of 2.
9. The method of claim 1, wherein the VQ decoding footprint is a subset of the halftone footprint.
10. The method of claim 1, wherein the VQ encoded image is encoded through compression of a vector formed by data from multiple color components.
11. An article including instructions in machine-readable form that, when executed, cause the machine to:
  - a) receive a VQ encoded image;
  - b) decode the VQ encoded image; and
  - c) perform output image color space processing in conjunction with the decoding.

12. A VQ decoder, comprising:

- a) at least one input path operable to receive VQ-encoded data;
- b) a lookup table operable to provide output values for a given input value;
- c) a processor operable to receive the VQ-encoded data and access the lookup table to acquire output values; and
- d) at least one output path operable to allow the processor to transmit the output values for further processing.